

ABSTRACT

A process for fabricating a micro-electro-mechanical system (MEMS) composed of fixed components fixedly supported on a lower substrate and movable components movably supported on the lower substrate. The process utilizes an upper substrate separate from the lower substrate. The upper substrate is selectively etched in its top layer to form therein a plurality of posts which project commonly from a bottom layer of the upper substrate. The posts include the fixed components to be fixed to the lower substrate and the movable components which are resiliently supported only to one or more of the fixed components to be movable relative to the fixed components. The lower substrate is formed in its top surface with at least one recess. The upper substrate is then bonded to the top of the lower substrate upside down in such a manner as to place the fixed components directly on the lower substrate and to place the movable components upwardly of the recess. Finally, the bottom layer of the upper substrate is removed to release the movable components from the bottom layer for floating the movable components above the recess and allowing them to move relative to the lower substrate, while keeping the fixed components fixed to the top of the lower substrate.